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YUGOSLAV NATURAL RESOURCES,
AGRICULTURE, AND FORESTRY

The following report is one of several taken from Informativni priručnik o Jugoslaviji, a handbook published irregularly since late 1948 by the Yugoslav Directorate for Information.

Together with the USSR, Yugoslavia is the richest country in Europe in quantity and variety of mineral resources. Serbia, Bosnia-Herzegovina, and Macedonia are especially rich in mineral resources. Yugoslavia has deposits of coal, copper, iron, lead, zinc, manganese, chromium, antimony, pyrite, nickel, gold, silver, mercury, sulfur, graphite, magnesite, bauxite, chalky clays for cement, gypsum, fireproof and ceramic clays, asphalt, oil shales, petroleum, and the like.

Yugoslav agricultural areas produce Central European, Alpine, Mediterranean, and subtropical crops, including cereals, industrial plants, fruits, and vegetables. Conditions are favorable for the raising of livestock and poultry. Yugoslavia has large deciduous and coniferous forests, and great water power resources.

I. MINERAL RESOURCES

The geological structure of Yugoslavia is very complicated and varied, all geological formations being represented. Volcanic activity was very strong, especially during the early geological periods. These factors account for the creation of Yugoslavia's mineral resources.

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All mineral deposits so far discovered have been explored only slightly below the surface. Exploration for deposits, the location and extent of which can be determined by special geophysical methods and equipment and by deep drilling, has been started only recently.

Yugoslavia is rich in the basic sources of power: coal, naphtha, natural gas, water, and wood.

Coal, oil shales, and natural gas reserves discussed in this report are those that have been positively established through geological, mining, or other explorations and are ready for exploitation (A reserves); and those that have been established through explorations at individual points, estimates being made on the basis of these explorations (B reserves).

Reserves based solely on surface outcroppings and similar indications (C reserves) are not included.

Coal Deposits [See Map A, appended]

Yugoslavia has coal reserves of about 11.8 billion tons, consisting of 0.2 percent black coal, 18.3 percent brown coal, and 81.5 percent lignite. Coke and other high-quality solid fuels can be obtained from almost all types of lignite by means of refining processes.

About 4 billion tons of coal have been found in Serbia, 5.8 billion tons in Bosnia-Herzegovina, 1.2 billion tons in Croatia, and 450 million tons in Slovenia. Smaller deposits have been discovered in Montenegro and Macedonia.

However, coal production is not in proportion to the richness of deposits. Coal production in Slovenia is 21 percent of the total coal production in Yugoslavia, 16 percent in Croatia, 35 percent in Bosnia-Herzegovina, and 27 percent in Serbia.

The largest deposits in Serbia are the Timok and Ibar black coal mines; the Senj-Resava basin, Aleksinac, Despotovac, Soko-Banja, and Vrdnik brown coal mines; and the Kostolac, Kolubara, and Kosovo lignite basins. The last three are the largest coal basins in Serbia.

Coal deposits in Bosnia-Herzegovina include the central Bosnian basin containing the Zenica, Kakanj, and Breza brown coal mines; the Mazgraja, Mostar, Banovici brown coal mines; and the Kreka lignite mine. The central Bosnian basin is Yugoslavia's largest brown coal basin, and the Kreka mine is the largest lignite mine.

Coal deposits in Croatia include the Rasa black coal mine; the Siveric, Krapina, Golubovac-Ivano Polje brown coal mines; and the Konjescina and Koprivnica lignite basins.

In Slovenia, coal deposits include the Sava basin with its Trbovlje, Hrasnik, Lasko, and Cerovo brown coal mines, and the Veltaje lignite mine.

Coal deposits in Montenegro include the Plevlje lignite mine.

In Macedonia, coal deposits include the Zivojao and Kotlanovo lignite mines.

In 1950, coal production in Yugoslavia was double the prewar production. Production continued at this rate would exhaust present coal reserves in about 1,000 years.

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Petroleum, Natural Gas, and Oil Shales

Considering one ton of petroleum equal to 20 tons of oil shales or 1,000 cubic meters of natural gas, Yugoslavia has approximately 57.3 million tons of petroleum reserves consisting of 25 percent petroleum, 71 percent oil shales, and 4 percent natural gas.

The petroleum reserves are distributed as follows: 18 percent in Serbia, consisting chiefly of oil shales around Aleksinac, and petroleum and natural gas in the Banat area; 25 percent in Croatia, consisting of petroleum and natural gas in the eastern section between the Drava and Sava rivers, and oil shales along the Dalmatian coast and on the islands; 13 percent in Slovenia, consisting of petroleum and natural gas in the Mura River valley; 43 percent in Macedonia, consisting of oil shales in the northeastern section; and one percent in Montenegrin Primorje. Bosnia-Herzegovina has not been explored, except for deposits at Tuzla.

At the present rate of consumption of petroleum and petroleum derivatives, Yugoslav petroleum reserves could satisfy domestic? requirements for about 110 years.

Hydroelectric Power

Water power in Yugoslavia can produce over 12 million kilowatts of power, or 18 million horsepower. At present, Yugoslavia could utilize 9.1 million kilowatts, or 12.4 million horsepower. This is four times more power than all Yugoslav coal mines produce at present.

Yugoslavia has 1,050 waterways more than 10 kilometers long. The following rivers have the greatest water power potential:

	<u>Kilowatts</u>
Yugoslav Danube	850,000
Drina and tributaries	1,602,000
Drava (excluding "arinhia)	1,072,000
Sava and tributaries	923,000
Cetina	795,000
Neretva	560,000
Morava	404,000
Bosna	377,000
Lim	301,000
Zeta	270,000
Una	264,000
Vrba	248,000

Of the 9.1 million kilowatts that could be utilized, it is estimated that 30 percent could be utilized in Serbia, 21 percent in Croatia, 22 percent in Slovenia, 20 percent in Bosnia-Herzegovina, 3 percent in Macedonia, and 4 percent in Montenegro.

Yugoslavia has been utilizing its power resources as follows (in billions of kilocalories):

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	1936	1949
Coal	20,170	45,606
Petroleum	--	1,080
Natural gas	.015	0,078
Water power	1,040	5,620
Wood	12,180	11,030
Total produced	33,405	63,464

Ferrous Metals

1. Iron Ore Deposits [See Map B, appended]

To date, the largest iron ore deposits in Yugoslavia are in Bosnia at Vares and Ljubija. They amount to about 130 million tons. It is possible that there are additional deposits in this area.

Large iron ore deposits have been discovered in Serbia but have not yet been sufficiently explored. The largest deposits, which contain an average of 40 percent iron, are located in the Sumadija area extending from Belgrade to the Zapadna Morava River, and the second largest deposits in the Kopaonik area, which has estimated reserves of about 150 million tons of iron ore. The third largest deposits are located in northeastern Serbia near Majdanpek, Rudna Glava, and Crnaja; and the fourth largest are in the Kosmet.

There are numerous iron ore deposits in Macedonia. Large deposits west of Prilep have been verified.

To date, annual production of iron ore is about 850,000 tons.

2. Manganese

Most manganese deposits in Yugoslavia are located in a belt of diabase schists which extends across the entire country from the northwest to the south-east. Large manganese ore deposits are located in Kozara, Cevljanovic, the Lim valley, Raska, and around Kicevo. The deposits at Cevljanovic and around Kicevo at Cer have been explored most thoroughly.

3. Chromium

Yugoslavia is Europe's richest source of chromium. Chromium deposits have been discovered in the Krivaja valley in Bosnia, in the Valjevo-Cacak-Raska area in Serbia, and in Urosevac, Prizren, and Ljakovica, and between Kacanik and the Albanian frontier in the Kosmet. Macedonia's richest chromium deposits are located around Tetovo, Sar Planina, Karadag, and Kumanovo, while small chromium deposits are located around Veles and Valandovo.

The chromium content of these deposits is 42-50 percent. Yugoslav chromium reserves are estimated at 1.5 million tons.

4. Molybdenum

Norway is the only country in Europe besides Yugoslavia which has molybdenum deposits. The largest molybdenum deposit is located in Mackatica in eastern Serbia, where large reserves of over 100 million tons were discovered. Molybdenum is also found in Serbia in Peinja and Ghjilane srezes and in Crnaja and Tanda. Molybdenum is obtained as a by-product from lead-zinc ore in Mexice in Slovenia.

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5. Nickel

The best known nickel deposits are located in Serbia in Ba, Ladina, Laka, and Stragari. Exploration of these deposits is under way, but reserves already discovered are estimated at several hundred thousand tons. Nickel deposits are also located around Studerica and Gokcanica south of Zlatjevo. Yugoslav magnesite ore contains about 0.3 to 1.5 percent nickel.

6. Cobalt

Cobalt is found in the valley of the Gokcanica River, a tributary of the Ibar. There are additional cobalt deposits in Rudnik and Kopaonik.

7. Tungsten

Deposits of tungsten were discovered recently in Yugoslavia.

Nonferrous Metals [See Map C, appended]

1. Copper

Yugoslavia is second in copper production in Europe. The largest copper deposits are located in northeastern Serbia in the Bor and Majdanpek area. The red sandstones extending from Krepoljin to Bosiljgrad in eastern Serbia also contain copper, and there are copper ore deposits in Kopaonik in western Serbia, southeast of Zvornik. The next largest copper ore deposits were discovered in Macedonia, in Demir Kapija and Valandovo. Copper ore deposits in Bosnia were discovered in the central Bosnian mining area in the Fojnica and Kresovo areas.

To date, only the reserves of the Bor mine, which amount to about 20 million tons, have been fully explored. Yugoslav copper ore reserves are estimated at over one billion tons.

2. Lead and Zinc Ores

Lead and zinc ores are found in large quantities throughout Yugoslavia. These ores usually occur together.

The largest lead ore deposits are in Serbia and Macedonia in the area between Belgrade and the Greek frontier, including Avala, Kosmaj, Rudnik, Kotlenik, Rogozna, Kopaonik, Trepca, Lec, Ajvalija, Novo Brdo, Zletovo, and Dudica. The largest deposits, in Trepca and Zletovo, contain reserves of about 12 million tons. Additional lead and zinc deposits are located in Mezica in Slovenia; in the Kresovo, Fojnica, Srebrenica, and Celebic areas in Bosnia; and in Podrinje in the Krupanj area in western Serbia.

Yugoslav lead and zinc ores contain an average of 120 to 150 grams of silver per ton.

3. Bauxite

Yugoslavia is among the richest countries in the world in bauxite, with bauxite deposits extending from Istria to the Albanian border. The richest deposits are in Istria, Dalmatia, and Herzegovina. Recently, large deposits of high-quality bauxite were also discovered in Montenegro. Yugoslav bauxites contain 50 to 55 percent aluminum oxide. The deposits in Dalmatia and Herzegovina contain over 100 million tons of bauxite.

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4. Antimony

Yugoslavia is first in Europe in the production of antimony.

In Serbia, antimony deposits are located in Podrinje at Krupanj, Zajaca, the Ivanjica area (Lisan mines), and Bujanovac. In Bosnia, antimony deposits are found in Fojnica, Mrcaj, and Srebrenica. Yugoslav antimony reserves are estimated at 150,000 tons.

5. Mercury

Yugoslavia is one of the richest countries in the world in mercury resources and production. The largest mercury deposit being exploited is at Idrija in Slovenia. In Bosnia, there are unexplored mercury deposits in Fojnica and Krasevo; in Serbia, at Avala; and in the Montenegrin Primorje, at Sutomore.

6. Arsenic

The largest arsenic deposits are at Majdan in Macedonia, at Krasevo and Srebrenik in Bosnia, and at Rudnik and Kopsouik in Serbia.

7. Pyrite

Yugoslavia has two important pyrite deposits: at Majdanpek in Serbia and at Bakovic in Bosnia. Pyrite also occurs in lead, zinc, and copper ore. Yugoslav pyrite deposits are estimated at close to 8 million tons.

Precious Metals

1. Gold

Serbia is first in gold-bearing centers, located in the Homoljske Planine; the Stara Planina; the alluviums of the Peka, Bela Reka, and Timok rivers; the area east and southeast of Vlasotince; the alluviums of the Vlasina and Jazna Morava rivers; the Slisane area; and the Veliki Jastrebac and Goc areas.

Macedonia is second in primary deposits of gold but first in alluvium deposits. The alluviums are located in the lower reaches of the Vardar, Anka, and Konjaka rivers. Primary deposits are located around Strumica and Valandovo, in Karadag, and in the Demir Kapija area.

Bosnia has several primary deposits of gold at Mrcaj, and in the alluviums of the Lasva River and its tributaries.

Gold deposits in other parts of Yugoslavia are of less importance, except for the alluviums of the Drava and Mura rivers in Slovenia.

2. Silver

A large number of silver-bearing ore deposits are located in Serbia, Macedonia, and Bosnia-Herzegovina. Most of the silver is in copper, lead, and zinc ores and deposits. Silver is exploited in Yugoslavia only at Trepcu, but as a by-product.

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3. Platinum

Yugoslavia has secondary deposits of platinum at Trstenik in Serbia, and in the Demir Kapija area and Valandovo in Macedonia. These are of no major economic importance.

Nonmetals

1. Asbestos

Numerous asbestos deposits are located in Serbia, Macedonia, and Bosnia-Herzegovina. The most thoroughly explored asbestos deposits are in the Ibar valley at Kosovska Mitrovica, and at Stragari and Bosansko Petrovo Selo.

2. Magnesite

Yugoslavia is rich in magnesite. The three main areas in magnesite deposits include the area between Gornji Milanovac, Cacak, and Kraljevo in western Serbia; the Kosovo and Drenica areas; and the Zlatibor area. Magnesite is also located in Razana in western Serbia, in the Pcinja and Veles areas in Macedonia, and in the Duboscica area in Bosnia. Magnesite reserves are estimated at 7 million tons.

3. Saltpeter

Saltpeter deposits are located in Tuzla and Tuzanj near Donja Tuzla. Reserves exceed 20 million tons.

4. Gypsum

There are large gypsum deposits in Macedonia at Debar, in Croatia at Sinj, and in Serbia at Kragujevac.

5. Barite

Yugoslavia has numerous barite deposits, but they are exploited only in some places in Bosnia, Serbia, and Croatia. The largest deposits are located in Bosnia at Kresevo in the Krivaja basin, Sanski Most, and Sinjahovo; in Croatia, in Petrova Gora near Topusko and Mrzla Vodica near Gorski Kotar; and in Serbia, at Negotin and Misljenovac.

6. Mica

There are Mica deposits in numerous places in Macedonia, and at Prokuplje in Serbia.

7. Graphite

Numerous graphite deposits are found in Slovenia, Croatia, and Serbia. Graphite is being exploited in Croatia at Slavonska Pozega and in some places in Slovenia.

Yugoslavia has many additional mineral deposits which have not yet been explored. These are rare metals and nonmetals, such as vanadium, tin, niobium, titanium, tantalum, beryllium, clay, kaolin, feldspar, talc, and the like.

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Mineral Waters

Many thermal mineral springs are located on the southwest periphery of the Sarajevo-Zenica coal basin toward the central Bosnian mountains between Blazuj and Busovaca, which includes the Ilidza spring in Sarajevo, and the springs in Kiseljak, Klokot, Brestovac, Palez, Osliste, Busovaca, and other places. There are thermal springs in Gornji Smer along the southwest periphery of the Banja Luka basin, in Vrucica near Teslic, along the periphery of Usorako Polje, and other places. Mineral springs found in the Srebrenica area include the Crni Guber, Crvena Reka, Mala, Kiselica, and Velika Kiselica springs.

A chain of thermal and mineral springs in northwest Yugoslavia, in Slovenia and the Croatian Zagorje, includes Topolsica, Dobrna, Rogaska Slatina, Rimske Toplice, Varazdinske Toplice, Krapinske Toplice, and other springs. Lipik and Daruvar thermal springs are on the periphery of Psunj and Papuk. Numerous thermal and mineral springs are located between the Rhodope and the west Macedonian mountains. In Macedonia, these include the Projevo spring at Kumanovo, and the Katlanovska Banja, Kozje, Vucji Do, and Stipska Banja springs. In Serbia, they include the Vrnjacka Banja, Mataruska Banja, Ovcarska Banja, Kursunlika Banja, Novopazarska Banja, and Josanicka Banja springs, the thermal springs in Lukovo, and numerous acid springs between Krusevac, Trstenik, and Vrnjacka Banja spring.

The thermal and mineral springs in the Rhodope mountains (Belasica, Ogrozd, and Osogov Mountains) are distinguished by their high temperature. They include the Vranjska Banja, Strumicka Banja, and Sijerinska Banja springs. The Trepcja and Mlakovac thermal springs are located near Rudnik Mountain, the Banja Koviljaca thermal springs along the northern periphery of Gucevo Mountain, and several acid and iodine springs on Majevica Mountain.

Thermal and mineral springs in the Carpathian and Balkan mountain system include the Miska Banja, Soko Banja, Brestovacka Banja, and others.

Mineral springs in the Pannonian Basin, which were reached by deep drilling, are typical of petroleum-bearing terrain. These springs are located in Novi Sad, Stari Becej, Temerin, Stara Kanjiza, and Sveti Ivan.

There are over 100 thermal and mineral springs in Yugoslavia. Their composition is as follows:

1. Mineral and therapeutic waters whose therapeutic activity is based on their warmth and radioactivity. The majority of mineral springs (over 30) in Yugoslavia belong to this group. The best known among them are the Soko Banja, Dobrna, Miska Banja, Josanicka Banja, and Stubicka Toplice springs.
2. Carbonate waters containing alkaline carbonates and alkaline-earth metals include the Bukovica, Stara Kanjiza, Gabernik, and Vrnjacka Banja springs.
3. Muriotic or saline waters containing table salt are located in Tuzla, Slankamen, and other places.
4. Carbonate and muriotic waters containing carbonated and chlorides are found in Precec, Paklenica, Bujavica, and other places.
5. Carbonate-sulfate-saline waters containing alkaline sulfates and carbonates, and alkaline-earth metals are found in Gabernik, Rogaska Slatina, and Ilidza.

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6. Carbonate-sulfate-saline-muriatic waters containing alkaline carbonates, alkaline-earth metals, and sulfates and chlorides of these metals are located in Radenci, Debarska Banja, Lipik, Lomnicka, Losin, and other places.

7. Bitter waters containing sodium and magnesium sulfates are found in Vujicevo.

8. Iron-carbonate waters containing carbonate and iron salts are located in Bled, Koviljaca, Orahovica.

9. Arsenic waters containing iron and very small quantities of arsenic are found in Srebrnica (Crni Guber spring), and at the source of the Crvena Reka and Velika Kisclica rivers.

10. Warm sulfurous waters containing hydrogen sulfide are the Vranjska Banja, Varazdinske Toplice, Kocanska Banja, and other springs.

11. Iodine waters are found in Sisak, Prigrevci, Stari Jece, Caprag, and other places.

12. Radioactive waters containing radioactive gases are the Slatina spring in Banja Luka, and the Dolenske Toplice, Katlanovska Banja, and other springs.

The most important spas in Yugoslavia are as follows:

In Slovenia -- Dobrua, Radenci, Rogaska Slatina, and Rimske Toplice

In Croatia -- Varazdinske Toplice, Krapinske Toplice, Daruvar, Lipik, and Topusko

In Bosnia-Herzegovina -- Ilidza in Sarajevo, and Vrucica in Teslic.

In Serbia -- Bakovicka Banja in Arandjelovac, Vrnjaska Banja, Vranjska Banja, Mataruska Banja, Niska Banja, Soko Banja, Josanicka Banja, and others.

In Macedonia -- Katlanovska Banja, Debarska Banja, and Strumicka Banja.

II. FORESTRY

About one third of Yugoslavia is forest area, 7,345,000 hectares of which are forested and 1.4 million hectares unforested. The total stand of timber is estimated at about 800 million cubic meters with an average annual accretion of 15 million cubic meters. Yugoslavia is seventh in Europe in forest area, fifth in forest cover.

Forest areas and timber are as follows (in percent):

	<u>Forest Area</u>	<u>Total Stand of Timber</u>	<u>Of Total Forest Area, Forest-Covered</u>
Serbia	23.1	14.6	19.5
Croatia	25.8	23.4	32
Slovenia	11.3	13.9	51.3
Bosnia-Herzegovina	26.2	33.4	37.4
Macedonia	7.5	6.4	20.8
Montenegro	6.1	8.3	32.5

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In the past, about 1.4 million hectares of forests were destroyed, especially in Dalmatia, Macedonia, and Lika, causing large areas to become unfertile, denuded, and water eroded.

Sixty-four percent of Yugoslavia's forests are high forests, 15 percent are low forests, and 20 percent are brushwood. The high forests supply timber and firewood, the low forests chiefly firewood. Since brush cannot be exploited efficiently, brushwood areas usually serve as pastures.

Eighty percent of the forests are deciduous and 20 percent are coniferous. The deciduous forests include mostly beech (about 60 percent) and oak (about 24 percent). The coniferous forests include about 85 percent fir and juniper.

Yugoslav forests have not been exploited or utilized efficiently. Efficient forest development is under way only in Slovenia and a part of Croatia. Forest exploitation is difficult because of lack of mechanization and transportation. Timber available is not utilized efficiently, because of lack of factories for finished lumber products, and lack of factories which can utilize wood waste.

III. AGRICULTURE

About 70 percent of Yugoslavia's population is engaged in agriculture. Of the total area of Yugoslavia, 13.7 million hectares or 61 percent is agricultural land. The following table shows the pattern of agricultural land use in Yugoslavia (in percent of total land area):

	<u>Yugoslavia</u>	<u>Serbia</u>	<u>Croatia</u>	<u>Slovenia</u>	<u>Bosnia-Herzegovina</u>	<u>Macedonia</u>	<u>Montenegro</u>
Total agricultural area	61.3	70.3	61.6	51.1	51.1	65.4	44.9
Arable land and gardens	33.5	45.5	28.3	14.8	26.8	33.4	7.3
Orchards	1.4	2.6	0.8	1.	0.9	0.4	0.3
Vineyards	1.1	1.5	1.9	1.2	0.1	0.7	0.1
Meadows and pastures	25	17.3	30	33.9	23.2	31.6	35.9
Other agricultural area	0.3	0.4	0.6	0.2	0.1	0.3	0.3

Agricultural production is concentrated as follows (in percent):

Farming	59.2	62.8	53.1	54.1	57.9	69.8	34.4
Fruit growing	2.5	1.8	2.8	3.4	3.8	2.2	4.1
Vine cultivation	3.9	3.8	5.9	4.8	0.4	3.1	1.1
Livestock production, including fishing	34.4	31.6	38.2	37.7	37.9	24.9	60.4

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Yugoslavia has exploited its agricultural land inefficiently because of the backwardness of its agriculture. Taking Yugoslav agricultural population, wheat production, and livestock as 100, the following table shows the backwardness of Yugoslav agriculture in comparison with that of other countries:

	Agricultural Population Per 100 Ha of Arable Land	Wheat Production per Ha (100 kg)	No. of Cattle per Ha of Land Under Cultivation
Yugoslavia	100	100	100
Hungary	63	119	50
Czechoslovakia	61	149	133
Austria	56	139	200
Denmark	32	259	200

Yugoslavia has grain areas with a very high average yield, as in the Vojvodina where the wheat yield is up to 2,000 kilograms per hectare, and very backward areas inhabited by about one third of the total population, where grain production is below 900 kilograms per hectare.

The degree of utilization of agricultural areas, and the degree of intensity of agricultural production vary a great deal in the different republics. Bosnia-Herzegovina, Macedonia, Montenegro, and parts of Serbia and Croatia are backward areas.

The main types of soil in Yugoslavia are the following:

1. Chernozem soil, a fertile soil rich in humus, occurs in the grain-growing regions in the Vojvodina and eastern Slavonija.
2. Podsolc soil, a medium-fertile to poor soil found in moist regions, is the most common type of soil in Yugoslavia (over 50 percent), especially in the western area. This type of soil requires systematic cultivation and fertilization.
3. Brown earth and "smonitza" soil, a relatively fertile soil found in moderately warm areas, occurs in Serbia and Macedonia.
4. Red earth (Terra rossa), very good for tobacco, grape, and citrus cultivation, occurs in the Mediterranean area in very shallow layers.
5. Saline soils, which occur in arid regions of the Vojvodina and Macedonia, are not suitable for cultivation and require reclamation.
6. River valley soils, which are very fertile, occur along the rivers. Other soil types also occur in Yugoslavia.

Much of Yugoslavia consists of Karst and flood plains which require reclamation. Large sections of the country require irrigation.

In the Sava, Danube, Tisa, and Morava river valleys, which include the fertile lands of Slavonija, Podravina, Srem, Banat, Backa, Baranja, Posavina, Macva, and Pomoravlje, levees have been built to protect one fourth of the arable land from high water. A canal system has also been constructed.

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The following shows the extent of flood protection and drainage in Yugoslavia:

Flood protected area	1,337,000 ha
Drained area	1,625,000 ha
Length of levees	1,430 km
Length of canals	16,250 km

The Five-Year Plan calls for the construction of the Danube-Tisa-Danube Canal, the Sisak-Zagreb-Podused Canal, and reclamation projects in Lonjsko Polje, Pelagonija, the Bregalnica river valley, and Lake Scutari. The area included in these projects is 753,000 hectares, 335,000 hectares of which are to be reclaimed in the first stage.

Basic agricultural areas of Yugoslavia are as follows:

1. The grain-growing region includes about 35 percent of the agricultural area of Yugoslavia, and extends into the Vojvodina, Slavonija, and the river valleys of the Sava, Danube, and Morava. Corn, wheat, sugar beets, flax, and sunflowers are cultivated in this region, and hogs, cattle, and horses are raised here.
2. The grazing region includes over 50 percent of the agricultural area of Yugoslavia. Corn and oats are cultivated here, and industrial and fodder crops to a small extent. Conditions are favorable for the raising of sheep, mountain horses, and other livestock. This region includes the economically backward areas of Kordun, Lika, Bosnia-Herzegovina, Montenegro, and the like.
3. The Mediterranean region covers part of Macedonia, the Adriatic area, and the Neretva River valley in Herzegovina. Cotton, tobacco, sesame, poppies, rice, barley, early vegetables, and tropical fruits (olives, figs, and carobs) are cultivated in this region.

Conditions for the development of fruit culture are favorable in almost all areas of Yugoslavia, but some areas are especially suitable for fruit growing. The most important of these are the plum-growing areas, which extend from Kozara over the Majevica and Rudnik mountains to the Velika Morava; and the apple-growing areas in Slovenia, in the drainage area of the Zapadna Morava, and in Prespa in Macedonia. Pears are grown in northern and central Yugoslavia; peaches, apricots, and cherries, chiefly in the northeastern plains and hills; olives, figs, kumquats, and other tropical fruits, in the Mediterranean section.

Vine cultivation is concentrated in seven areas in Serbia, four in Slovenia, one in Bosnia-Herzegovina, three in Macedonia, and one in Montenegro.

Favorable conditions for animal husbandry and the capacities for fodder production have made it possible to develop livestock production in Yugoslavia. Horse breeding is concentrated chiefly on domestic horses (the Bosnian mountain horse) and domesticated horses (Lipizzan, Arabian, and Monius horses). The most important native breed of cattle is the "Bosna"; followed by the Kolubara and Podolsko (valley) breeds, but the last two are being eliminated in favor of more productive breeds. Hog breeding is developed in the corn-growing areas of Yugoslavia. The most important breeds are the Mongol, white pure bred and improved Czech hogs, and Berkshire hogs. Sheep are raised throughout Yugoslavia, especially in the mountain areas where mountain pastures are suitable for sheep herding on a large scale. The native "Framenka" breed is the most widespread.

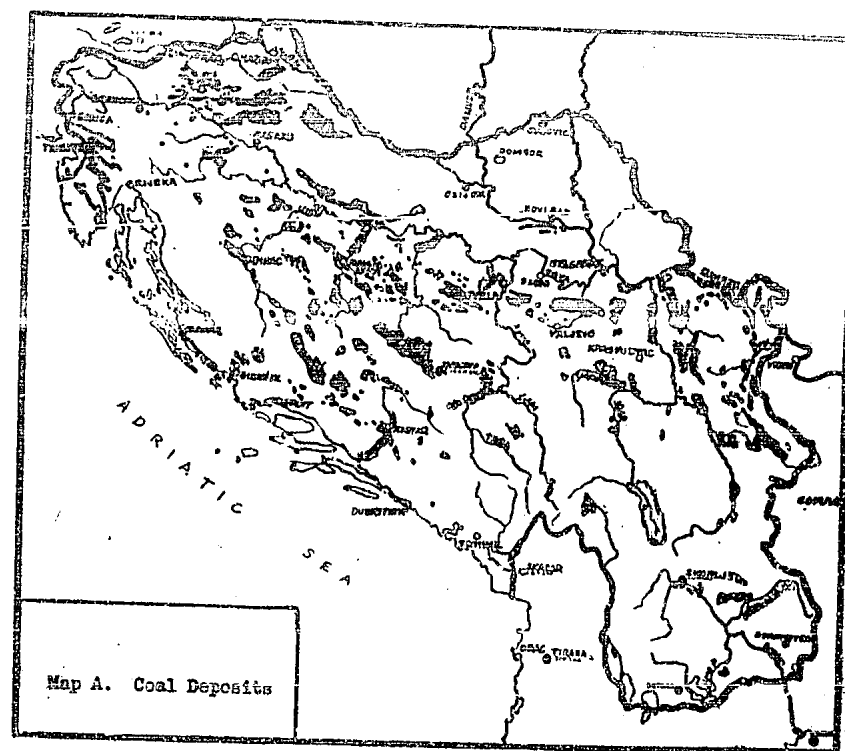
Favorable conditions make possible the development of other agricultural activities, such as beekeeping.

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The Adriatic Sea is known to contain about 350 species of fish. The most important are bluefish, sardines, and the like. Yugoslavia's average annual catch is about 20,000 tons, but the catch could be much larger. There are also fishing grounds in the rivers of the Pannonian basin and in Lake Scutari, Lake Ohrid, Lake Prespa, and Lake Doiran, which are among the most abundant in fish in the Balkans.

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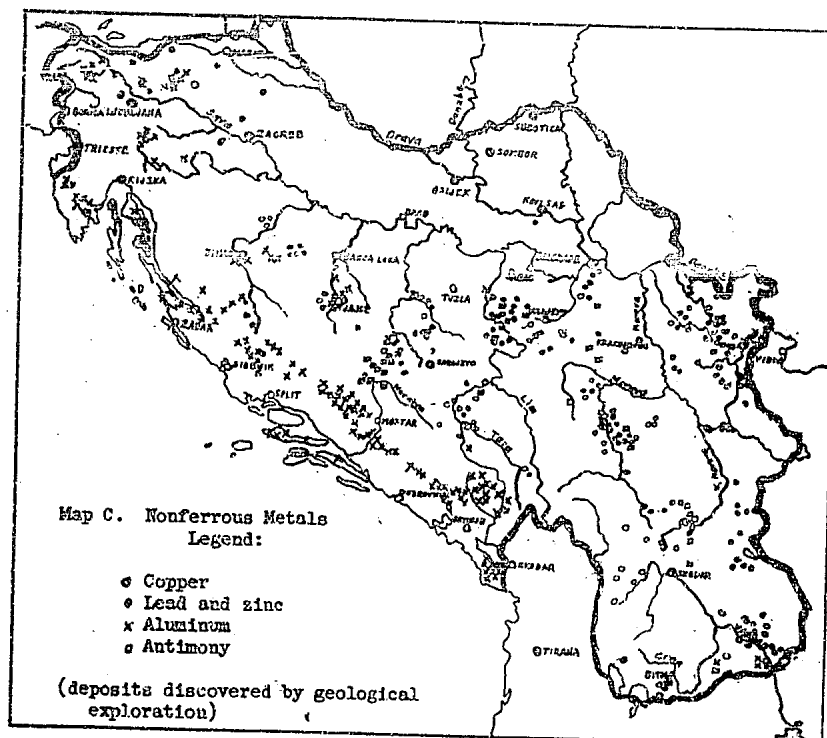
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